Andevorante to Ft. Dauphin.
7th Day continued.

M. of R. Mangátaiótra			
Mangátaiótra	12		
Ampásimélotka			
Ambolipeno Ft.	4		
Day's Journey		29	
Total		237	8th Day Ambolipéno to Ambáhy
Savána	4		
Junction of Rivers Análaka & Matitánana.			
R. Mainty joins R. Matitánana			
Máhamánina Ft.	6		
M. of R. Andákana	1/2		
M. of R. Anávotra	1/2		
Ranámbo	3 1/2		
M. of R. Salóly			
R. Mahitsy			
Anósikély	10 1/2		
Confluence & mouths of Rivers Mánambóro, Mánampátra			
Manambáto	9		
Farafángana	1/2		
Ambáhy	1/2		
Day's journey		35	
Total		272	9th day Ambáhy to Vainaindráno
Máhafáty			
Máhavilona			
M. of R. Mánasímba	8		
Ankarana Ft.			
M. of R. Takoándry	8		
Dangóngo	1 1/2		
Mánanívo	5		
Bénanorémana	5		The custom house & Post of Vangaindráno
Vangaindrano Ft.		27 1/2	Vangaindrano Ft. up the R. 7 miles
Day's Journey		299 1/2	west of Bénanorémana, 300 miles S.
Total			of Andevoranto.

Andevorants to Ft. Dauphin.

10th Day Vangaindráno to Somósika

R. Mánanára	1	
Betáfo Village		
M. of R. Másiánaka	10	
Etiéna	2	
M. of R. Márombóndro	10	
Somósika	18	
Day's Journey		41
Total		340

Eleventh day Somósika to Tanámbé

Ambálafandráno	5	
M. of R. Réngitra	4	
M. of R. Ivávibóla	7	
Tanámbé or Ivávibóla	1	
Day's Journey		25
Total		365

Twelth day Tanambé to Sámby

Vóhivárikía	15	
Ambátobé	5	
Mánanténa		
R. Sámby & Village	5	
Day's Journey		25
Total		390

13th day Sámby to St. Lucia

R. Lóvokantsántsa	7	
Mánambóto	3	
Tóngotra Pt.	1	
Lóhavato	4	
Manómbo Hill		
Confluence & mouth of rivers		
Maimbáva & Manámboarivo	3	
N. pt. of Ste Lucia bay	4	
Manáfiáfy	1	
Day's Journey		23
Total		413

Andevorants to Ft. Dauphin

14th day, Ste. Lucia to Ft. Dauphin.

Peak of Itapíribé		
M. of R. Mánanívo	10	
Lokára		
Márofófo Pt.		
Itapírina		
Ivátra	3	
M. of R. Léngoráno		
Fitóraka		
Límpomámy		
Límpomamy Lagoon		
St. Louis Hill		
Lake Másiánaka		
Táolanára or Ft. Dauphin	4	
Day's Journey		17
Total		430

Mahanoro to Antananarivo (Grandidier)

Mahanoro		
Bétsizaraína	5	
Ambódifárana	8	13
Ambódiháramy	14	
Ambódihára	12	26
Ambóhitsára	16	
Madio	14	30
Vóhibólo	8	
Máhatsára	6	14
Ambohitromby	10	On the R. Mangóro
Ankádilanány	8	18
Beparasy	13	
Ambodinivóngo	10	10
Soatsimanampiovóna	12	Lieu charmant qui ne changera jamais.
Ambatomanga	6	18
Antananarivo		16
From Mahanoro Total		158

The place formed by the late M. Lahomè for Ranavalona I

Antananarivo to Mahanoro – Sokes & Lord.

Antananarivo		
Antanánalaza	12	19th July – Rolling moorlands – Lofty heights overlooking Antlay valley. Narrow path through dense underwood.
Halt (20th July) –	8	
Crest of Ankáfona Hill (Valley of Lohosáha)		
Ankádibováva	10	21st July.
Halt 22d July.	30	
Sámbatánana stream		
Ámbatosbratra Hill (Ifody & Angavo mts.).	5	A mass of deep glens, ravines & sinuous valleys.
Beparasy.	15	23d A ~~large~~ dirty town with a large chapel.
R. Ankádimoró	50	24th Course S.E. over undulating ground. Manákana 16 houses – Path along banks of river.
R. Mangóro		
Manákana		
Junction of R. Isáka w. Mangoro		
Narrow Pass.		
R. Mangoro rapids		
Andakána		
Cross R. Mangoro	13	25th Safara R. flows S. in a course 11 to the Mangoro, wh. it joins to the East of the great bend.
Forest		
R. Safara tributary of Mangoro.		
Waterfall – 200 feet.		
Imáhatsára		
Forest cemetery	15	26th Through dense woods.
Maromaitso	12	27th
Maromaitso (?)	10	28th Maromaitso contains 40 houses.
Antananámbina	10	
Ampásimadinika		
Ambalavato	14	29th Gnus of travellers twists along a narrow valley.
Halt.		
Trátranaigitra		
Tsarafanina hill	6	30th
Village (unnamed).		
Mangoro banks		
Ambódirána	10	
Village at foot of rapids		
By water to Betsizaraina	10	Total 158 –
Hova Ft. Mahanoro	8	

Fianarantsoa to Masindrano.

		direction	
Fianarantsoa to Ambohanitsy	17	NE	Over grassy hills & downs, cross Matsiatra, canoes, but fordable in any season.
Ivato tálana	13	N.E	Over grassy plain with shrub.
Ránomafána	14	E	Over grassy plains, cross headwaters of Inamórona, dense forest; steep descent.
Ambála fásana	25	S.E	Down the wooded valley of Inamórona.
Ampásimpótsy	19	E	Through wooded valleys, crossing many streams.
Imaroáva	9	E	Wooded valleys.
Ivátovávy	18	ESE	Wooded valleys; rapid descent; high hills on left; leave forest for open country.
Antanámbáo	14	N.E	Grassy plains.
Itsiátosika	12	NE, N	Grassy plains with patches of wood; cross R. Mananjara in canoes.
Masindrano	10	E	B. river in canoes.
Total	151		

Masindrano to Fianarantsoa.

Masindrano to Ambátavótaka	9	S.	Through scrub & forest; cross lake in canoes.
Imárolúta	8	S.	Over open country a little from sea-coast; cross lake in canoes on leaving Ambátovótaka.
Namórona	15	S.	Grassy plains with forests; west of lakes; cross lake near Imárolúta, & R. Inamórona in canoes.
Ambótaka	20	S.	Over grassy plains & several deep water courses.
Tánambáo	15	N.W.	Up valley of Taraóny; open grassy country.
Ivóhimánitra	8	S.W.	Grassy country, with wooded patches; cross R. Taraóny in canoes.
Ambóhamáy	12	N.W.	Up wooded valley of Taraóny.
Ivóhimánitra	24	W.	Wooded valleys & grassy hills.
Ambóhimánga Kély	10	N.W.	Forest & wooded valleys; cross R. Taraóny.
Anjólobáto	11	N.W. W.	" " "; high mts. in front.
Ifóndranáva	18	W.	Ascend to high land through forest;
Fianarantsoa	15	N.W. W	grassy plains w. several marshy streams.
Total	165		

$6\frac{3}{4}$

60

360

40

400

60

460

20) 90

$4\frac{1}{2}$

3

$13\frac{1}{2}$

90

$103\frac{1}{2}$

Andevorante to Fort Dauphin

First day Andevorant. to Maintanándry

Andevorantsy	
mouth of R. Ianoka.	
Tanimandry Fort	1
N. extremity of Lake Salo	6
S. extremity of L. Salo	1½
N. extrm. of L. Vahia	½
S. extrm. of L. Vahia	2
Nara lavo.	
N. pt. of channel ~~lagoon~~ lagoon of Iangozy ~~Cha~~	1
S. pt. of channel of Iangozy lagoon	6
N. extremity of reach extending to Vatomandry	1
Vatomandry Fort	6
mouth of River Sakarivo	1
Maintánándry	13
Days Journey	39

Second Day Maint. to Mahanoro.

mouth of River Sakalina	¼
Antaimoro Village	8
S. pt. of Maintinandry lagoon	1¼
Mároseky	5
M. of R. Manándry	¼
Beparacy	7
Confluence of Rivers Ósy & Lóharána	

Andevranto to Ft. Dauphin

remarks by W. L. A.

Confluence of Rivers Sásatka & Tantáma		It took me 4½ hrs. good walking to go from Beporosy to Mahanoro, good hard level road all the way. Distance between 14 & 15 miles.
M. of R. Sásatka	8	
Mahanoro	¼	
Days Journey	30	
Total	69	

Third day Mahanoro to Ambálavántaka

Ambodirafára	1	It took 2/3 hrs. to walk along the coast road from the rova at Mahanoro (S. of the ferry) to Salay. Distance is at least 7 miles. The road described in this itinerary is very roundabout & is much further than Ambodiharana. Salay is abt. 1 mile across Mangoro. Passed a small village 2 hrs. from Ambodiharana, reached Andranotsara 2¾ hrs. 9 m.
Betsizarainá Ft.	1¼	
Antsivólene	1	
Ifásina	¾	
Sálo	1	
M. of R. Mangóro	¼	
Ambódi háraná	¼	
Rantana	7	
S. pt. of Sáhavi chan.	¼	
Andránotsára	½	
M. of R. Lóhotra	¼	ferry over Lohotra R. From ~~Andranotsara~~ to Ampanontoana 1⅓ hr. 5 m. Ampanontoana 40 houses.
Antinjondráno	¼	
Ampánontoana	5	
Válon Kiánja	4	
Confluence of Rivers Sahantsío & Máhasóra		
M. of R. Máhasóra	1½	Walked to Masomeloka (without counting time spent in crossing Rivers, in 1½ hrs. making it abt. 6 m. Went on to Ambalavontaka in 1¾ hrs. making it abt. 7 miles. Ambolavontaka only has 3 inhabited houses & no supplies. After sakafo went on to Ambinanivóla 1½ hrs. abt. 6 m. Ambinanivola 10 houses
Masomeloka	½	
Análaila		
Ambálavóntaka	8	
Days Journey	32¾	
Total	101¾	

4th day Ambat. to Fanándava

M. of R. Ivólo	2	From Ambinanivola to Sakaléo took 2½ hrs. abt. 9 miles. Crossed a small stream by bridge just beyond Ambinanivolo. Sakaléo 30 houses
Ambóhimanóro	1½	
Nósindrávina	2	
Sákaléo	3½	

Andevranto to Ft. Dauphin

Fourth day continued

Remarks by W. L. A.

M. of R. Sákaléo		Distance Sakaléo to Nosivarika 3 m. correct. Just beyond the R. Sakaleo stands Nosivarika, 20 houses, on a bluff. Several other villages in neighborhood. Passed a village 4 miles South of Nosivarika & then another 4 miles further, both same distance west of the road. Most of the way from Sakaléo to Fanantara river is along the open plain at the [illegible] the belt of forest along the sea [illegible]
Nósivárika	3	
Ambosáhana	2	
Antára Lámbo		
Janámbás		
Ioan índra		
Ampoamántra		
Mambazáto	½	
Fanivílona		
Ambódi háramáy		It took 2 hr. & 10 minutes good walk [illegible] miles to go from Nosivarika to Andrano[illegible]
Andranóntsindráno	2½	
Análaló Cona		
N. pt. of Fenarivo lagoon	2½	No other village directly on road until we reached Ambáha
S. pt. of Fen. lagoon	1½	
Antanánd[illegible]		Halted for Sakaléo at a village called Ambáha, 20 houses. 4⅙ hrs. 16 miles from Nosivarika. Ambáha stands on a river called the Sakaléo [illegible] crossing
Ambóha		
Lóhivóhitra chan.		Marched from Ambóha to Mahámbo at the South side of Fanantara mouth – 1½ hrs. 4½ miles. Crossed the Fanantára vinámbe & then marched on to Mahela, the path leading along the narrow strip between the lagoons & the sea – sometimes along the sea beach itself. Reached Mahela, large village. 100 to 150 houses in 2 hr. & 40 minutes – about 10 miles. Passed a village called Antanambas, 30 houses 2 miles beyond (South of) Fanantára mouth.
M. of R. Fánantára	7½	
Ivóhitrómbe		
Ambóhitsára	½	
Andránomidíroka		
R. Sakáro, entrance to Ranganzára Lag.		
Mahéla	8½	
Mandinizara		
Fanandava Ft.	2½	
Days Journey	40	
Total	141¾	

Fifth day Fanandava to Manórona

M. of R. Rangány		Crossed ~~vinambe of River~~ just beyond Mahéla, passed small village ½ mile beyond Vinambe, crossed vinambe of River Défaka 1¼ hr., 5 m. from Mahela & halted at Défaka village 12 houses, ¼ hour beyond. Distance 6 miles from Mahéla. Did not see Ampandenana
S. pt. of Rangazára lagoon.	½	
M. of R. Défaka	1¾	
Ampandenánana	3	

Andavarantó to Ft. Dauphin.

5th day continued.

Ambóhimáro	5	Reached Ambohimaro in 2 hr. 8 m. from Ifajaka.
Faiatósika Ft.	2¼	Faiatosika Fort does not lie any where near the
S. pt. of Ifajaka ch.	2	work it is miles away up the river Manarjara.
Chan. leading to	1	No water crossed between Ifajaka & Masindrano.
Manarjara.		
Masindrano	3	reached Ampanolána 13 m. 3¼ hr. from Ifajaka. Masindrano ¾ hr. 2½ m. from Ifajaka
M. of R. Manarjara	¼	Ankatafána is ¼ mile from the Vinánq
Ambodirafo	1	an Ampanolána of 2¼ m. 0
Betsizarai	3	cuss here, ending at Longózo (no village). At Ifam
Antsivólam	2	poy a small vinana occurs (closed at this time).
Ifásina táka		(Town of 20 huts) Ambalavóntaka is 1½ m. beyond the
Sálo		vinánq. 4½ m. beyond A. occurs Manapána, a
M. of Brúgáry		village of 3 or 4 huts.
Ankitáy	6	a branch of the Betsimisaraka called Mananarana Marohíta, about 25 houses neat & clean, inhabited by
Ambóhipátrana		Bytokana an Ankitay is 2½ hr. from Marohíta & another
Vérangérana	8	village is ½ hr. further on. Ambohipatrana is 4½ hr. from
M. of R. Manóron	1¼	& 1½ hr. of N. Verangerana Vinánq. V. village lies 1 m. S. of vinánq
Namórona	2¼	Namórona lies 1 m. up River N. On the west of entrance
Day's journey	46¼	
Total	180	

6th day Namórona to Lóharáno

Másindráno Kely	1½	Cross an Ampanolána of 1½ hr. 4½ m.
Lohó Loka	4	Lohoboka 10 houses.
Andránbomáro	1¾	
M. of R. Andótso	¼	
Vatomásina Ft.	½	Sohimasa or Ambóntaka. No Hova garrison but
M. of R. Fárafóny		large village (Antaimoro) of 150 - 200 houses.
Ambátosóa	2½	
Ilámbazáha		
M. of R. Itampólo		
Lóharáno	9½	
Day's journey	20	
Total	208	7th day Lóharáno to Ambóhipéno
R. Mánanáno		
Mánanáno	4	
M. of R. Mánankára		
Mánankára	7	

Harney

spring some that a large train could readily exhaust, which has fishes similar to the slenderness species of the before mentioned

Fishes of Comanche, Leon & Escondido Springs. (5)

The Comanche is the largest and is the only one, whose waters run more than a few miles above ground. All this water has the same character - limpid but charged with chemical impurities. The greatest number variety are found in the Comanche; the two smaller species only occurring in the others. These are very similar in habits as well as form to the porgies of the coast feeding in bunches in the mud and ~~at~~ about the roots of ~~the~~ grass. Though all these springs have some species common, the (cat fish voltus) belong only to the Comanche. If these spring were ~~suff~~ stocked with fish from a common source, has the (Catfish voltus) disappeared in consequence of the quantity or quality of the water. The limpia a very insignificant little brook running but a few miles above ground has its fishes; and to the south east of this brook on a route to Presidio del Norte is a small

Notes on fishes collected in the U.S. Mex. Boundary Survey
J. H. Clark

(Rejecting the assumption of having been brought in a ducks gizzard - more fanciful and ingenious than philosophical

Harmony

spring some that a large brain could readily exhaust, which has fishes similar to the slenderness spr... of the before mentioned springs. This spring has a very limited drainage, has no connection whatever with any springs and is dissipated by sinking or evaporation within a quarter of a mile of its head. The presence of fishes in such isolated spring is to me wholly unaccountable; if they followed up from other water, it must have been before its connection was interrupted by the surface of the earth as at present existing

Texas trout. This delicious pan-fish inhabits all the clear water streams so numerously springing out from their under the great "llano estacado". ~~In a~~ transparent habitation renders an observance of their habits an easy & gratifying entertainment; they are seen lying still after the manner of a pike, under some clock bank or snag or ~~somewhat~~ ~~allay~~ quietly swimming around in small schools at a greater or less depth. They may take grasshoppers, bugs or the like, but minnows, ~~to~~ claw fish or other lowly aquatic animals mainly constitute their food. They afford exquisite sport to the angler who to be successful however must keep a supply of live minnows and attach them to the hook without killing them. (Bait) The trout takes it ~~bait~~ rather gently, which it swallows deliberately and as a rule does not dart off till it feels the line in its mouth or the hook in its stomach. It attains to six or eight pounds in weight - pulls heavy on the line and can seldom be taken in a seine which it no sooner touches than ~~it~~ leaps. Like the fishes of its kind ~~with~~ its large and ~~exposed~~ open gills exposes it to a rapid desiccation of course death.

Buffalo fish. ~~As~~ So called because of its great size or some fanciful resemblance to that ~~animal~~ Bufalo, ~~and~~ is one of the few fishes that inhabit the dirty and otherwise impure waters of the Pecos and Rio Grande; it also occurs in the clear water streams, where its supply seems to depend upon the freshets, ~~during~~ which ~~they~~ it undoubtedly comes up, as immediately after, it is seen in greater abundance than at any other time. ~~Schools~~ Schools of twenty or thirty weighing as many pounds were seen lying on the bottoms of the deeper holes of the Rio Nueces ~~in particular~~; ~~if~~ it real large proportions ~~being~~ greatly magnified ~~by refraction~~ as seen ~~through~~ the limpid water, ~~rather~~ ~~[illegible]~~ the beholder is surprised to find such small waters producing such fishes. It is sometimes left in pools in such numbers, particularly on Dev. river, by the freshet as to afford food for the ~~very~~ coyotes. Could never find any bait that it would take - the smaller ones frequenting shallow water are easily captured by being lancing ~~them~~ or stunning ~~them~~ by the discharge of a pistol. It is soft, bony ~~&~~ otherwise exceptionable as food.

Gila trout. The specimens of this fish were procured in the waters of the Rio San Pedro when muddy with a seine; ~~when it was~~ ~~were muddy~~ there was consequently ~~no~~ but little opportunity to observe its habits. It is less conspicuous than the Lescas trout, ~~for it seems~~ ~~it keeps deeper in the water~~ because the water which it inhabits is less limpid and also because it keeps further below the surface. It looks the hook baited with grasshoppers but not very readily. It does not leap the seine & was caught in company with the large mouthed suckers & other species.

Catfish & suckers of the Mimbres. Unlike all other species of the kind, they do not habitually keep on the bottom. At the time there were caught the Rio Mimbres was a succession of pools, partly filled with an aquatic grass, above which these two species were seen swimming around in perfect harmony. Readily alarmed, shying off into the grass, and generally declining all sorts of enticing baits. Their indifference to animal food - an unusual thing with a catfish led to the conclusion they both were herbivorous - reflected to settle the question by an examination of stomach.

Fishes of Babacomari & Sonorita. The of these streams are very abundant and take ~~baits~~ bait of any kind very ~~rapidly~~ voraciously affording excellent sport, which was heightened, in the then straightened condition of our stores, by the anticipation of a savory dish. The sonorita is one of the many streams of Northern Mexico, that after a succession of risings & sinkings finally disappears altogether as soon as it emerges from the mountains in which it takes its rise. On seining for the suckers, it was found that they made for the head of running water or the under ground portion of the stream, evidently seeking it for protection if not living there habitually. This stream may in seasons of freshets reach the Rio Santa Cruz & thus the ~~origin~~ source of its fishes accounted for; but this only carries the question of origin but one step back, for the Rio Santa Cruz itself ~~continues~~ from a few miles ~~above~~ below its head continues to diminish till by evaporation & dispersion through the sand, not one drop of its water in all human probability ever reaches the Gila, the Colorado or Gulf of California.

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